

Output cell

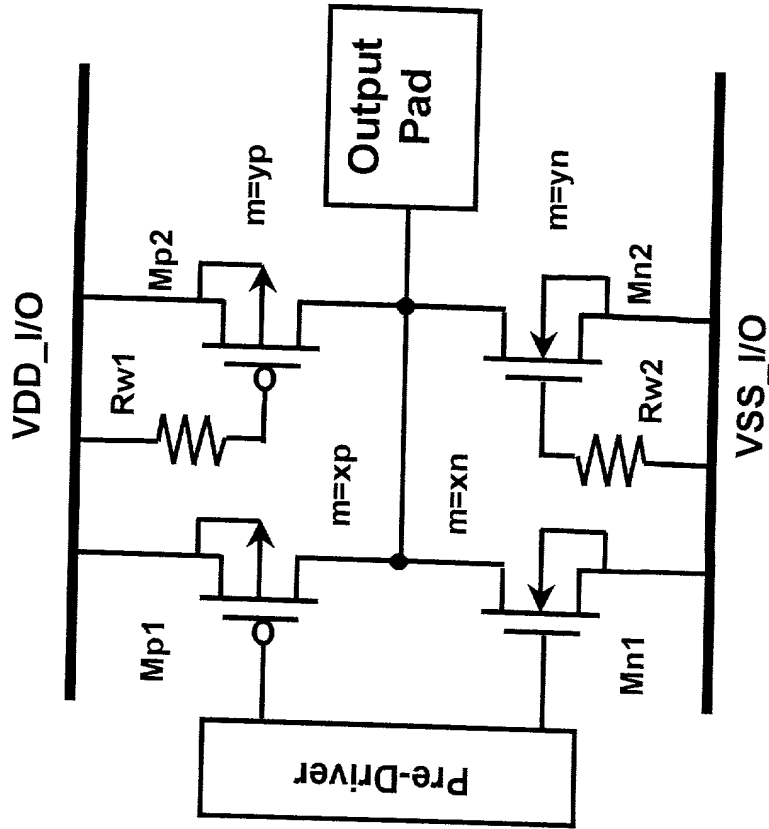


Fig.1(a)
Prior Art

Input cell

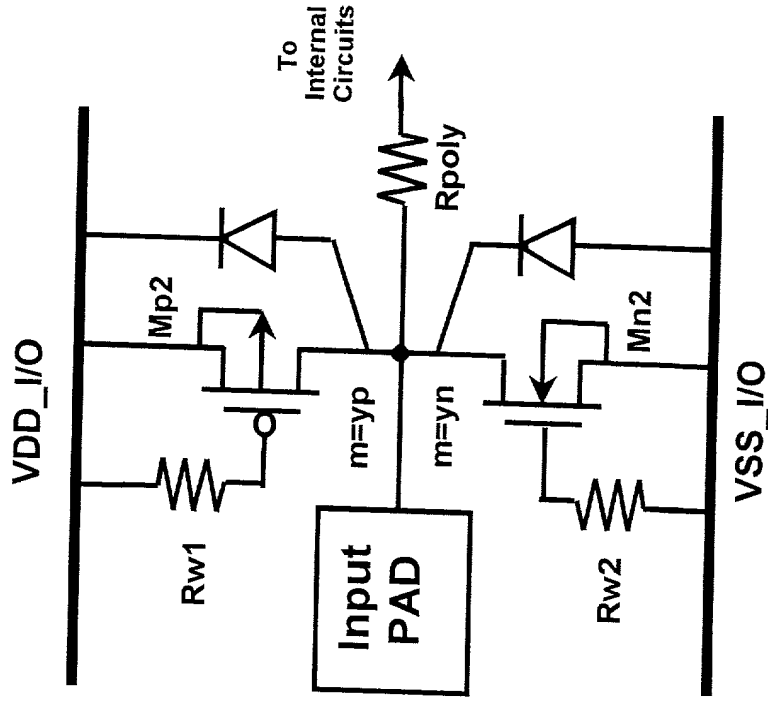


Fig.1(b)
Prior Art

Bi-directional cell

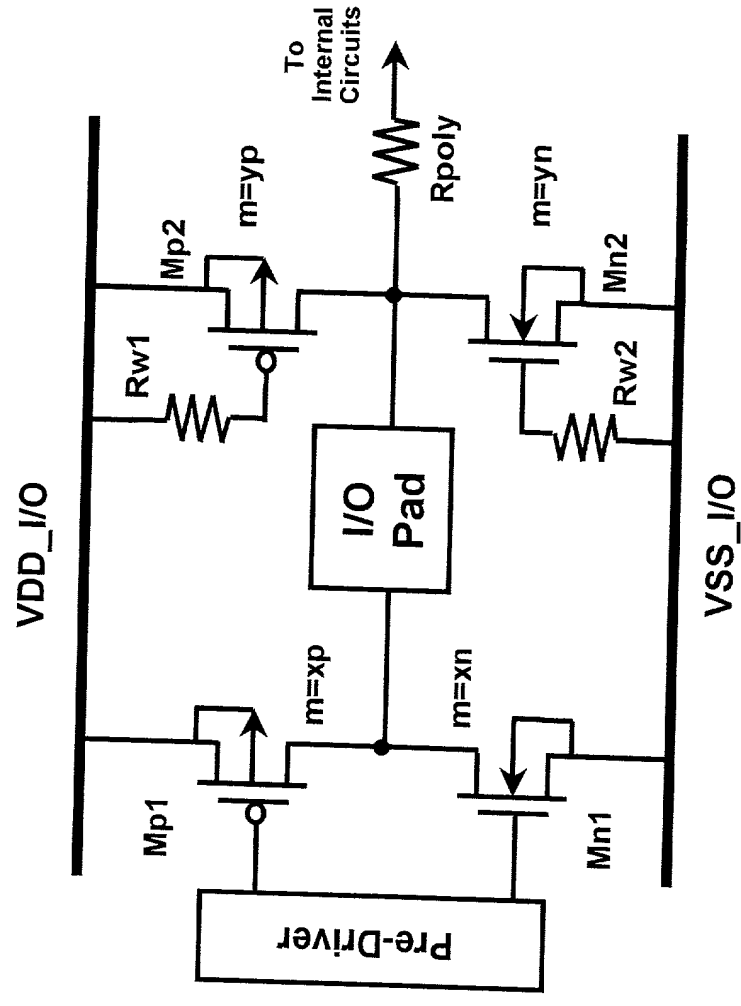


Fig. 1(c)

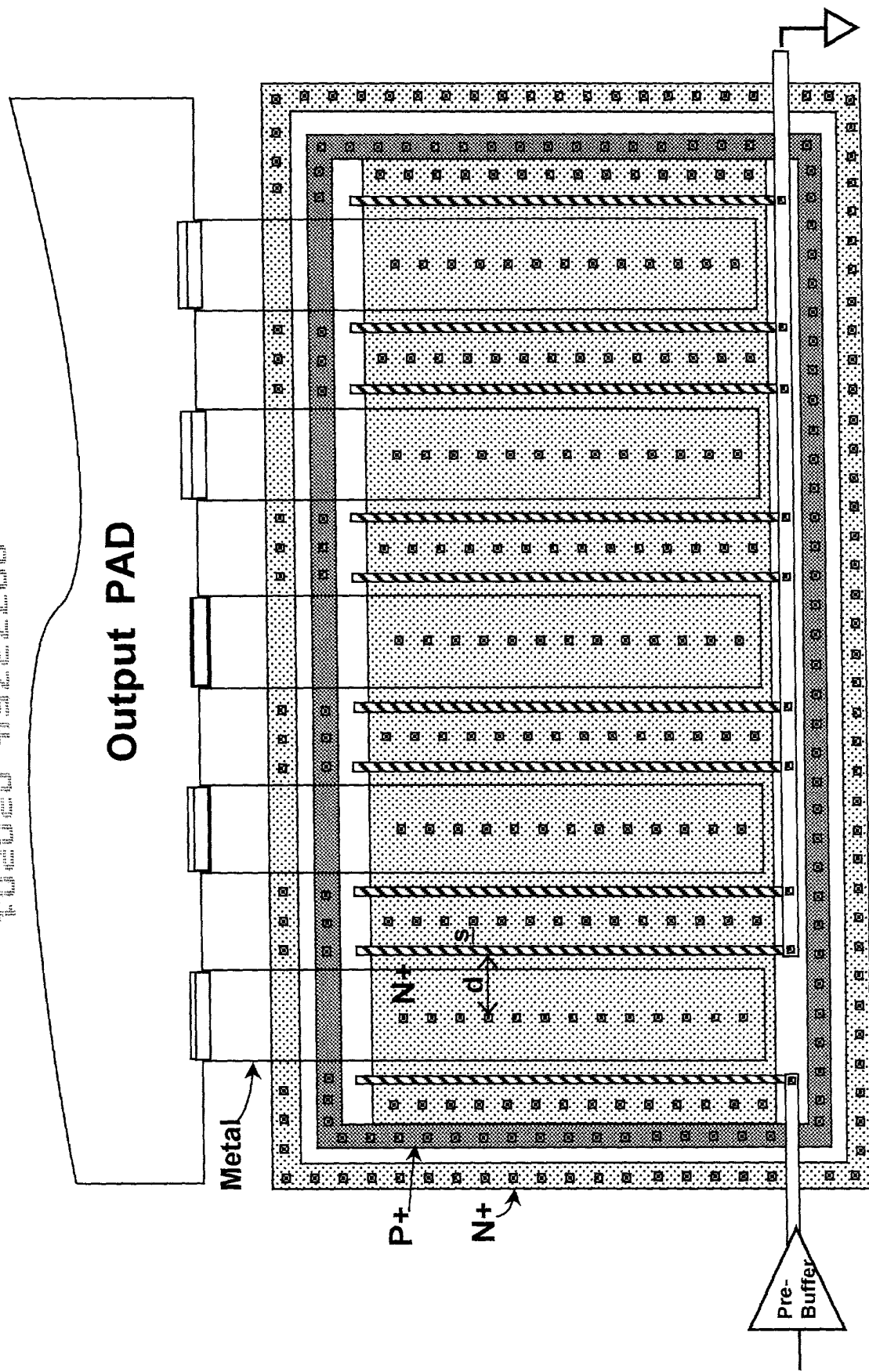


Fig.2(a)
Prior Art

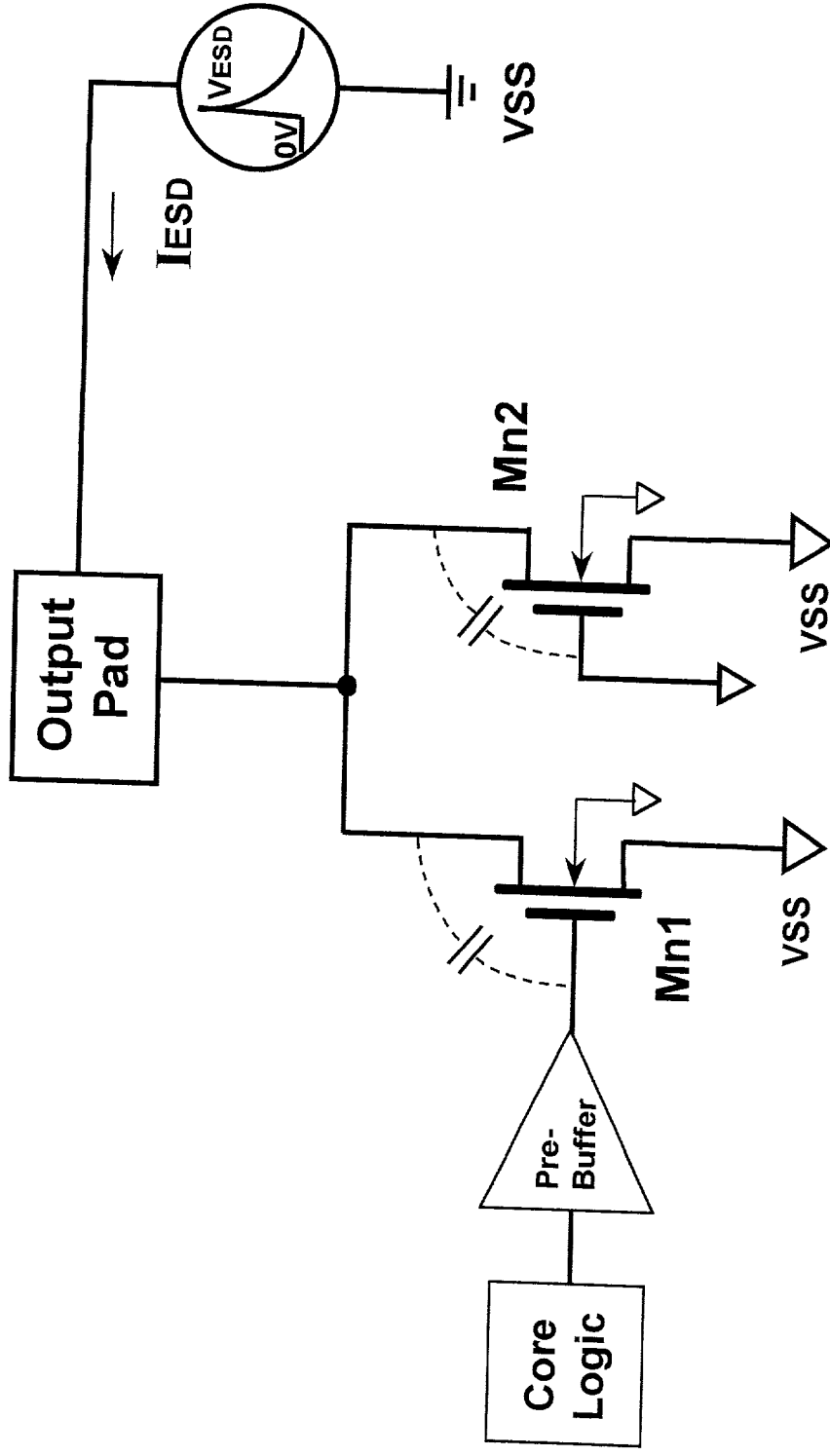


Fig.2(b)

Prior Art

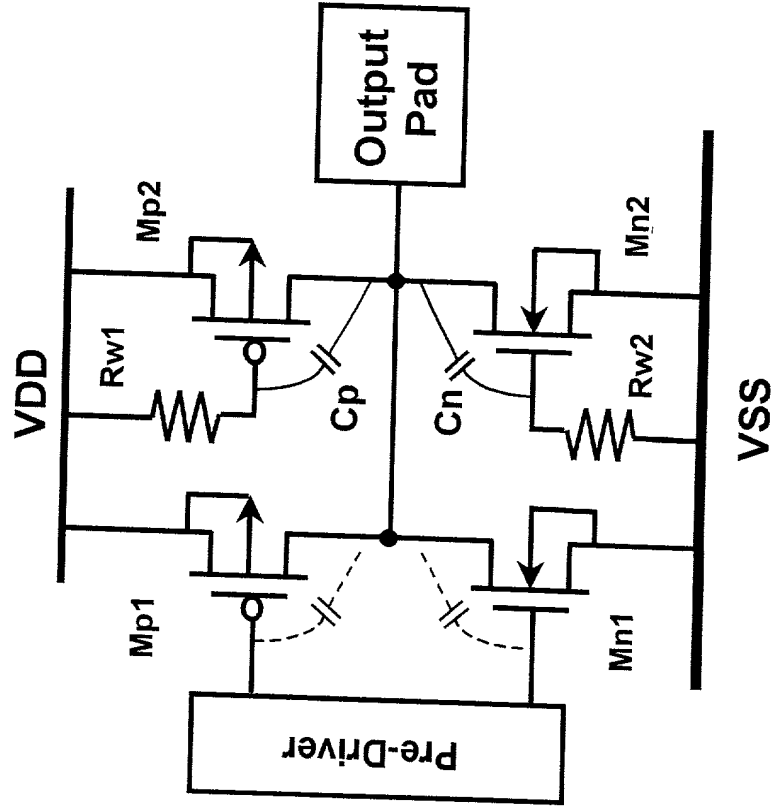


Fig.3
Prior Art

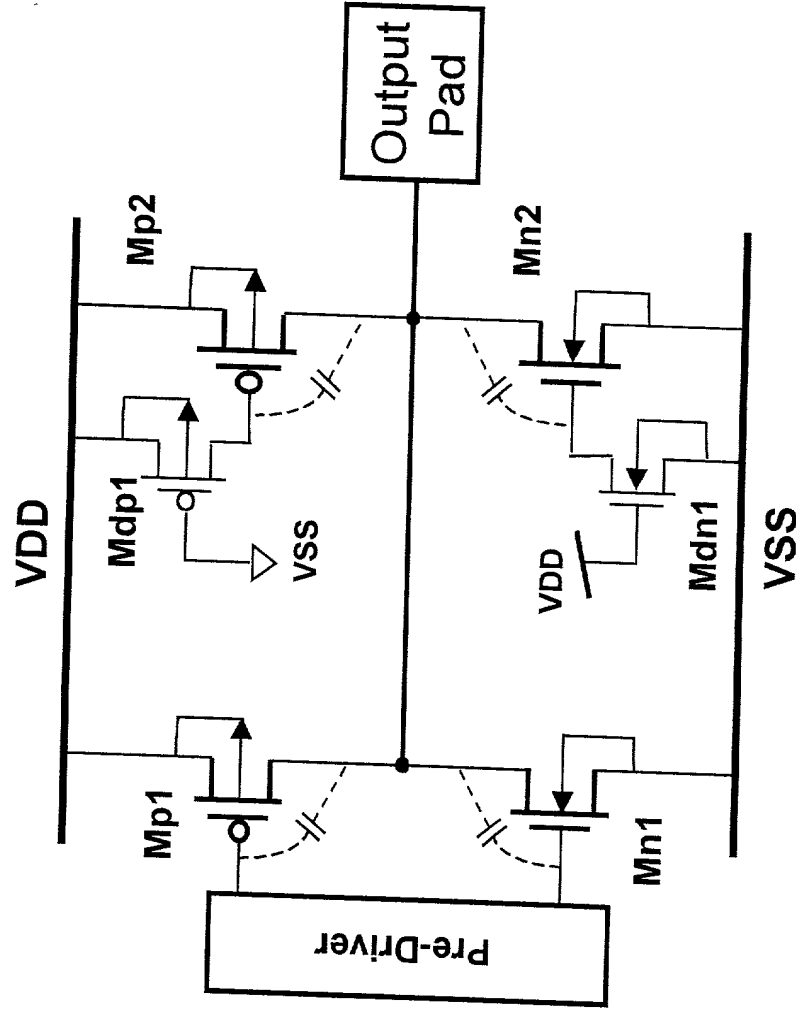


Fig.4
Prior Art

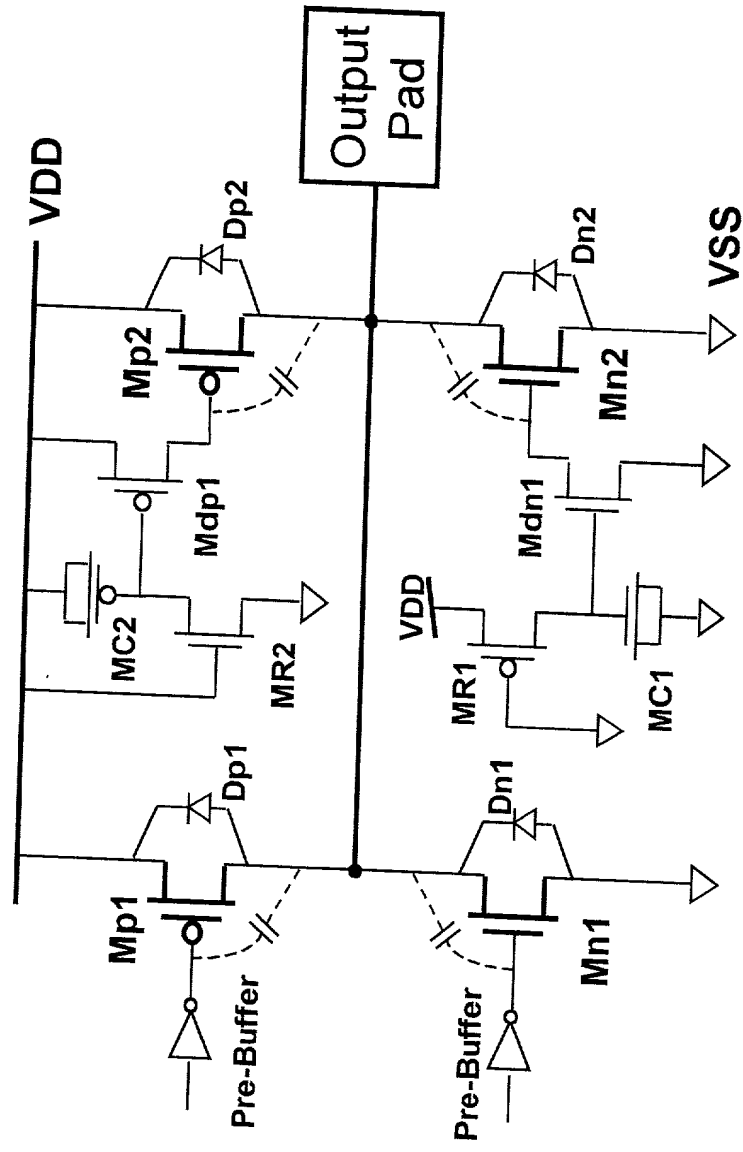


Fig.5

Prior Art

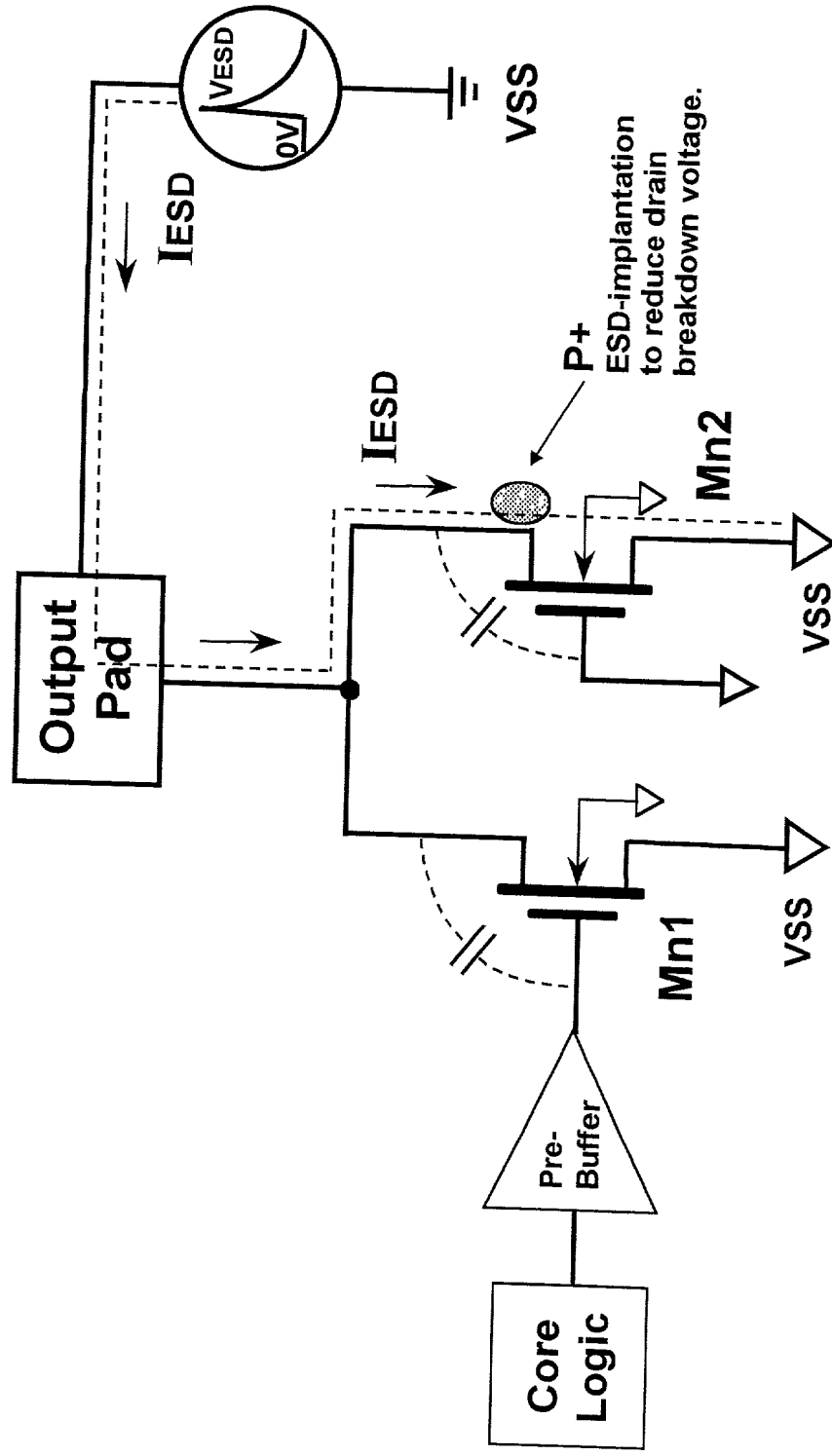


Fig. 6(a)

Prior Art

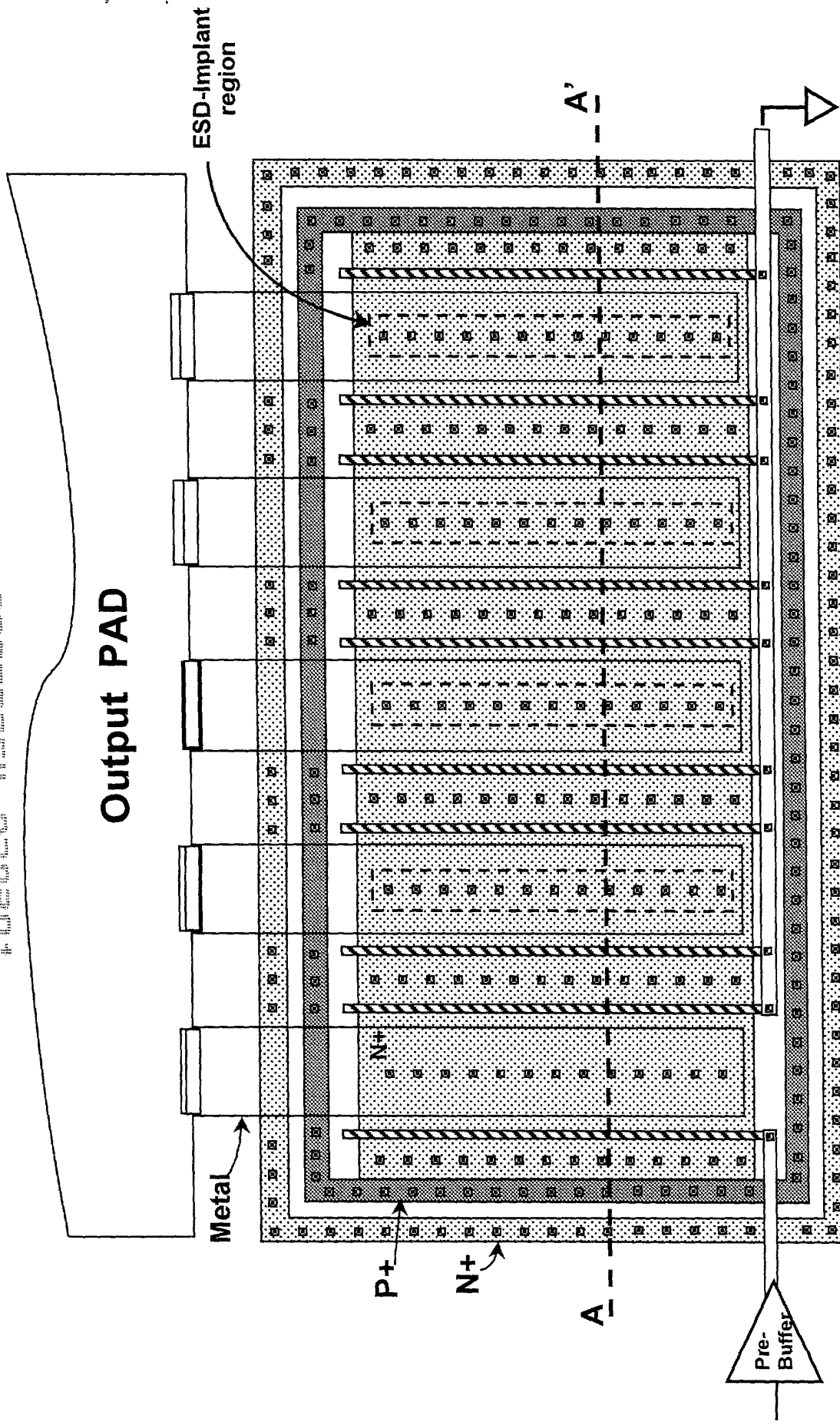


Fig.6(b)
Prior Art

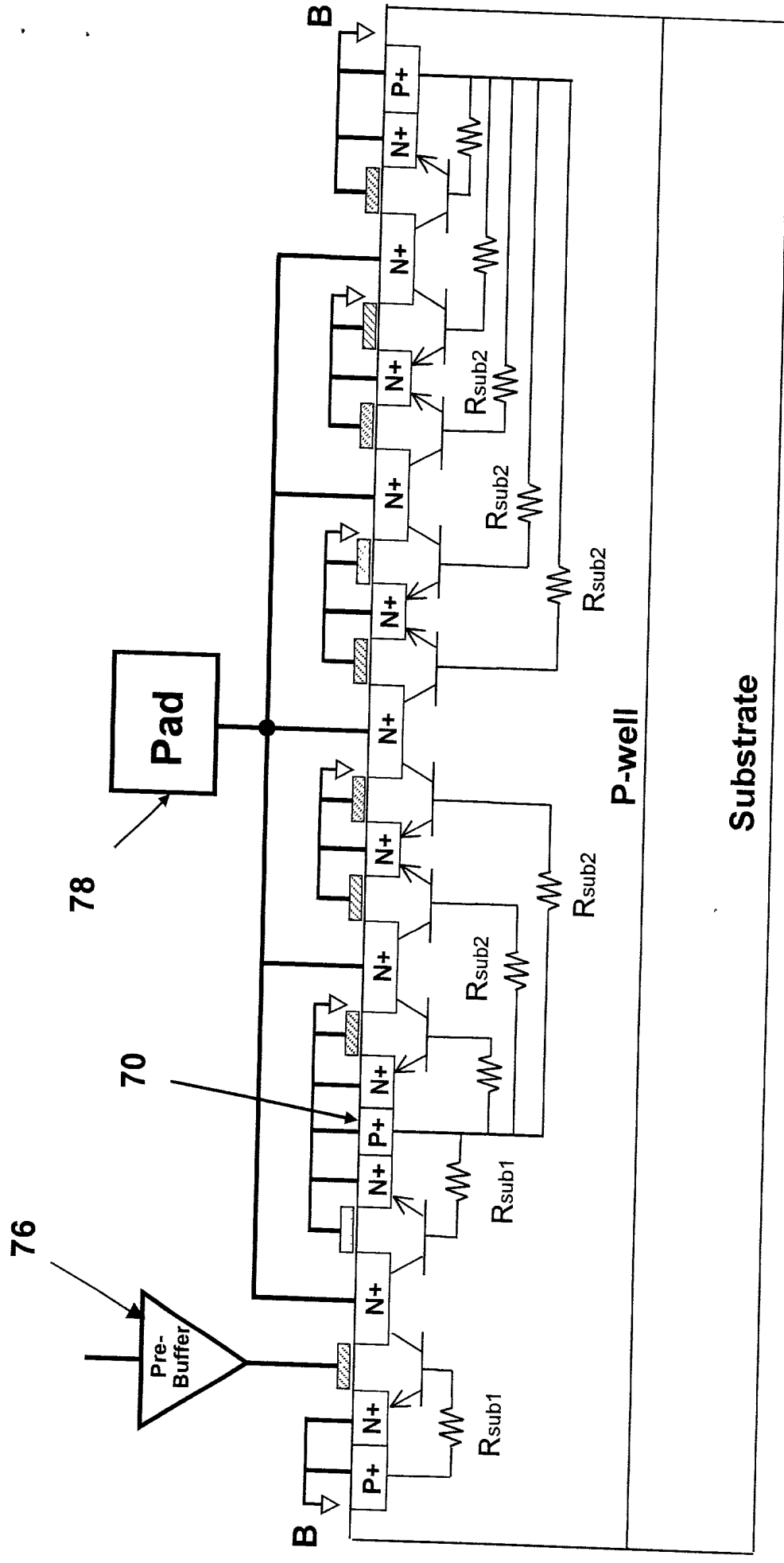


Fig.7(a)

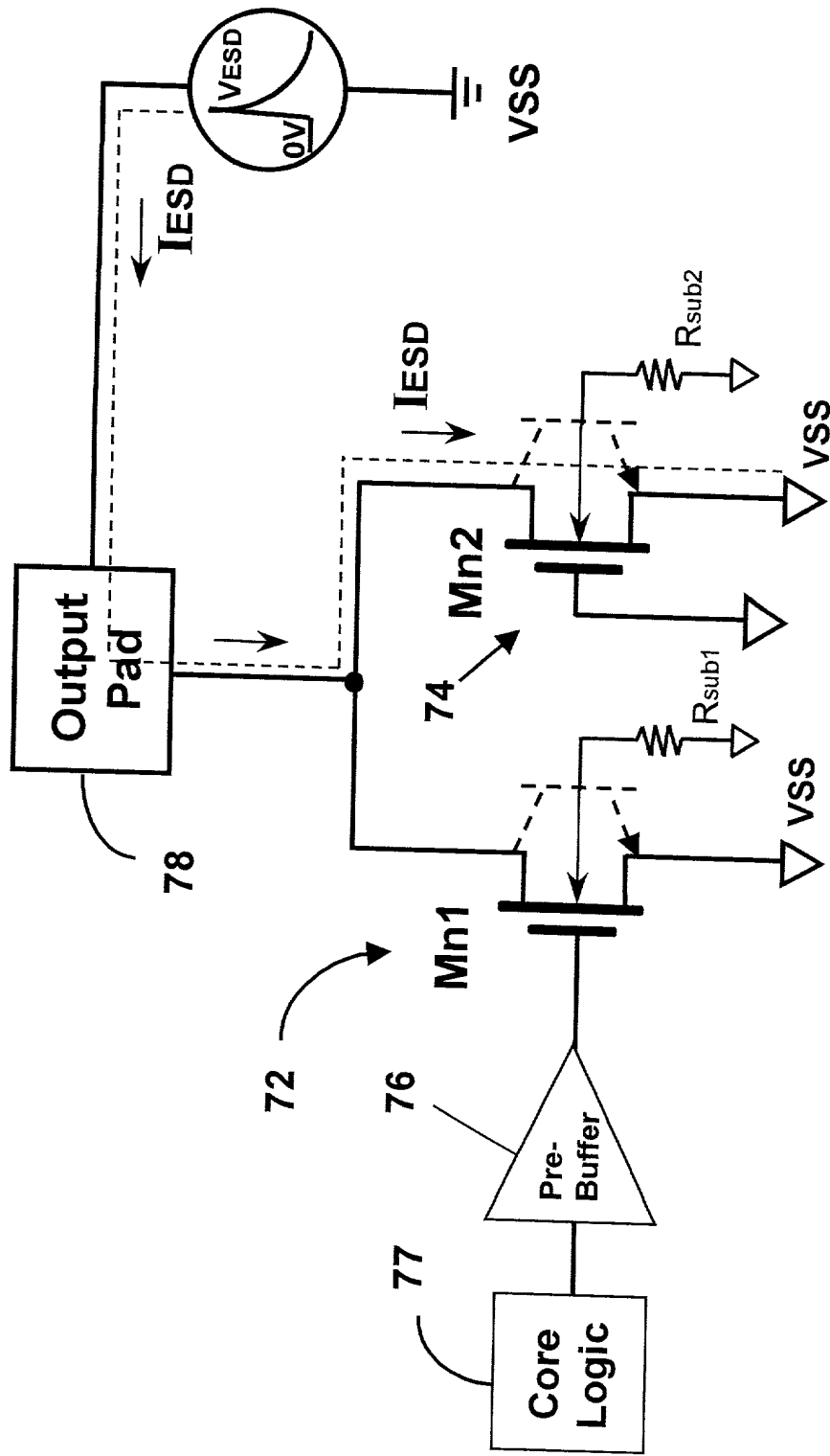


Fig. 7(b)

Output PAD

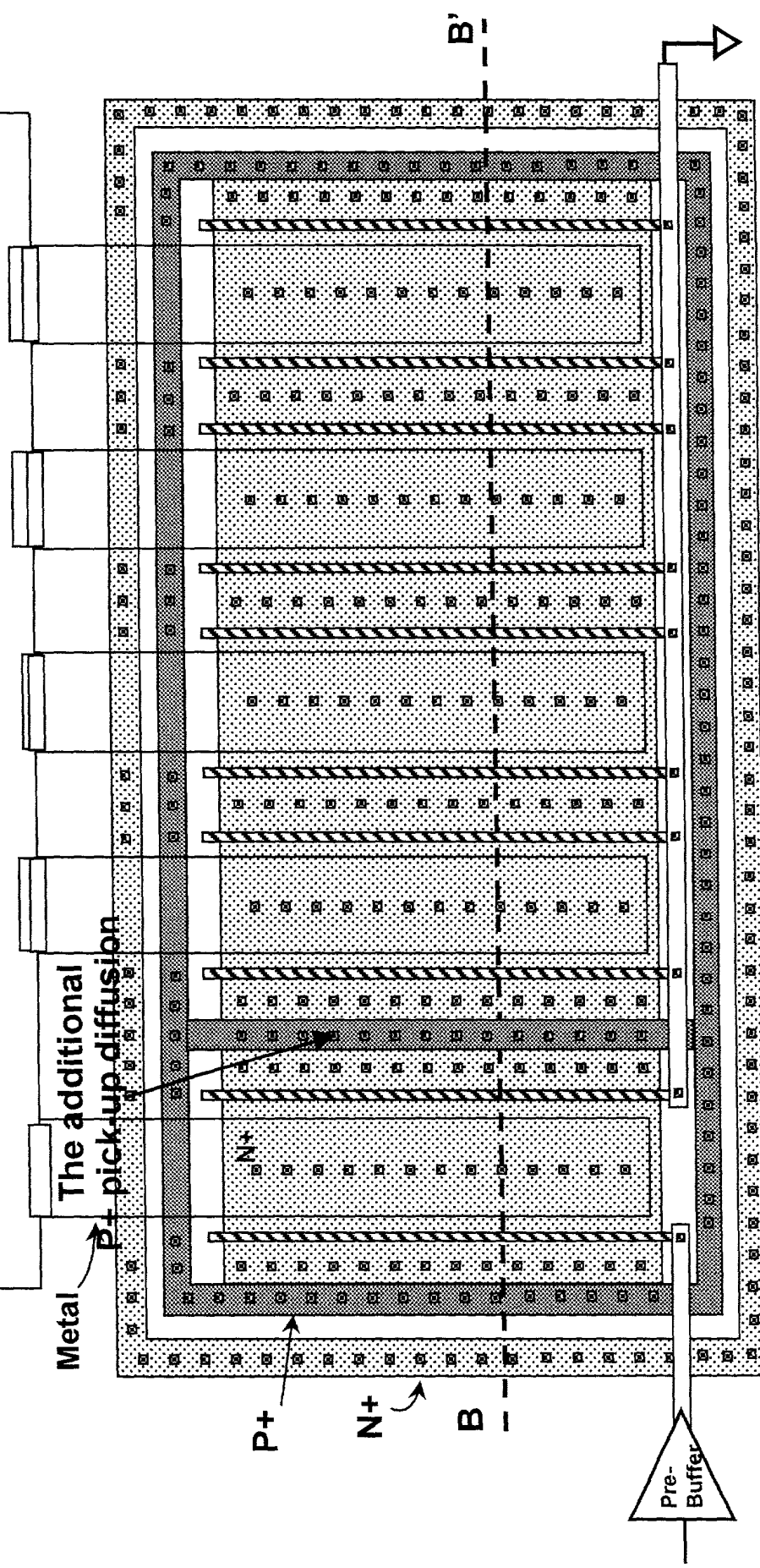


Fig.7(c)

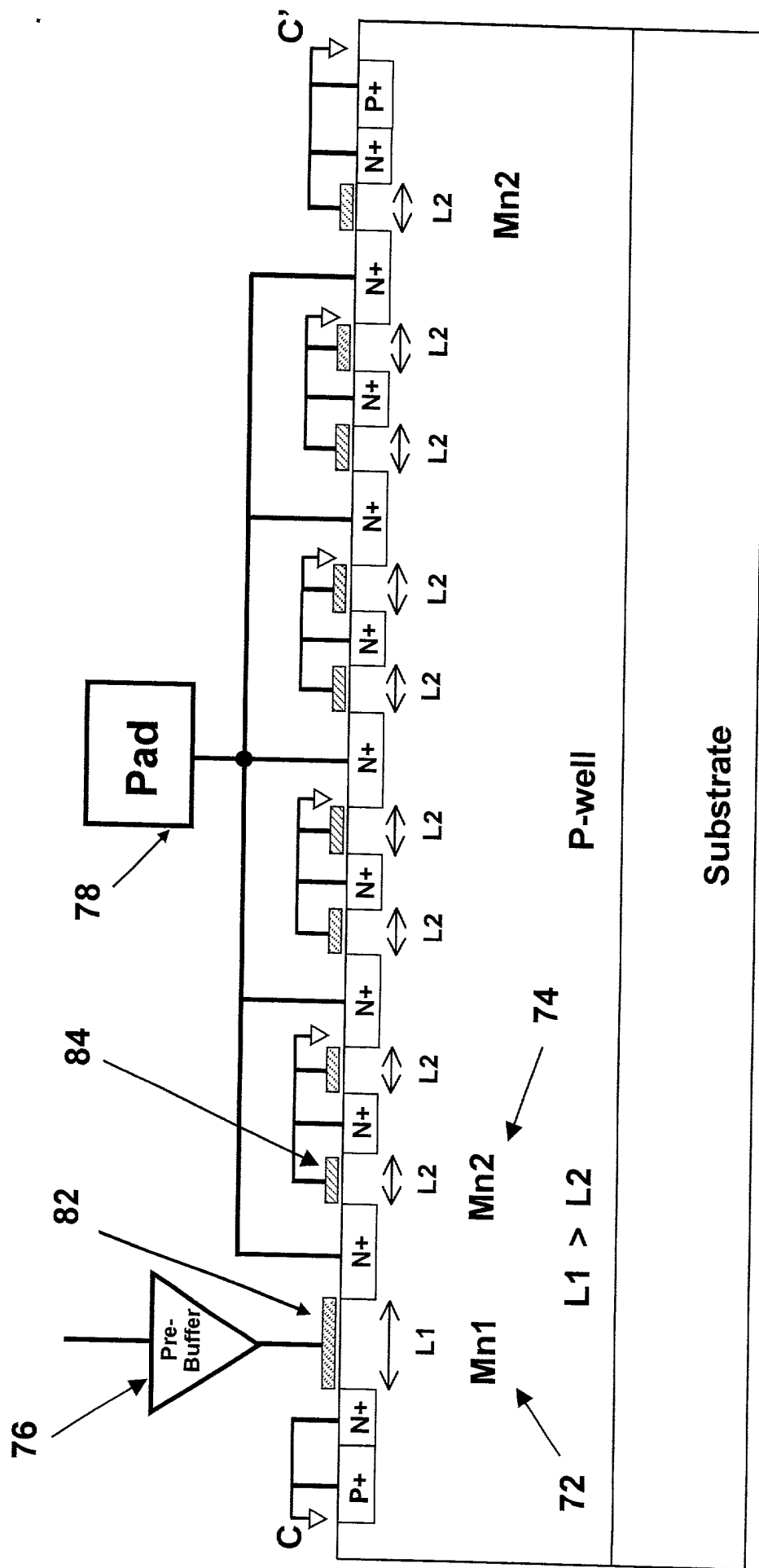


Fig. 8(a)

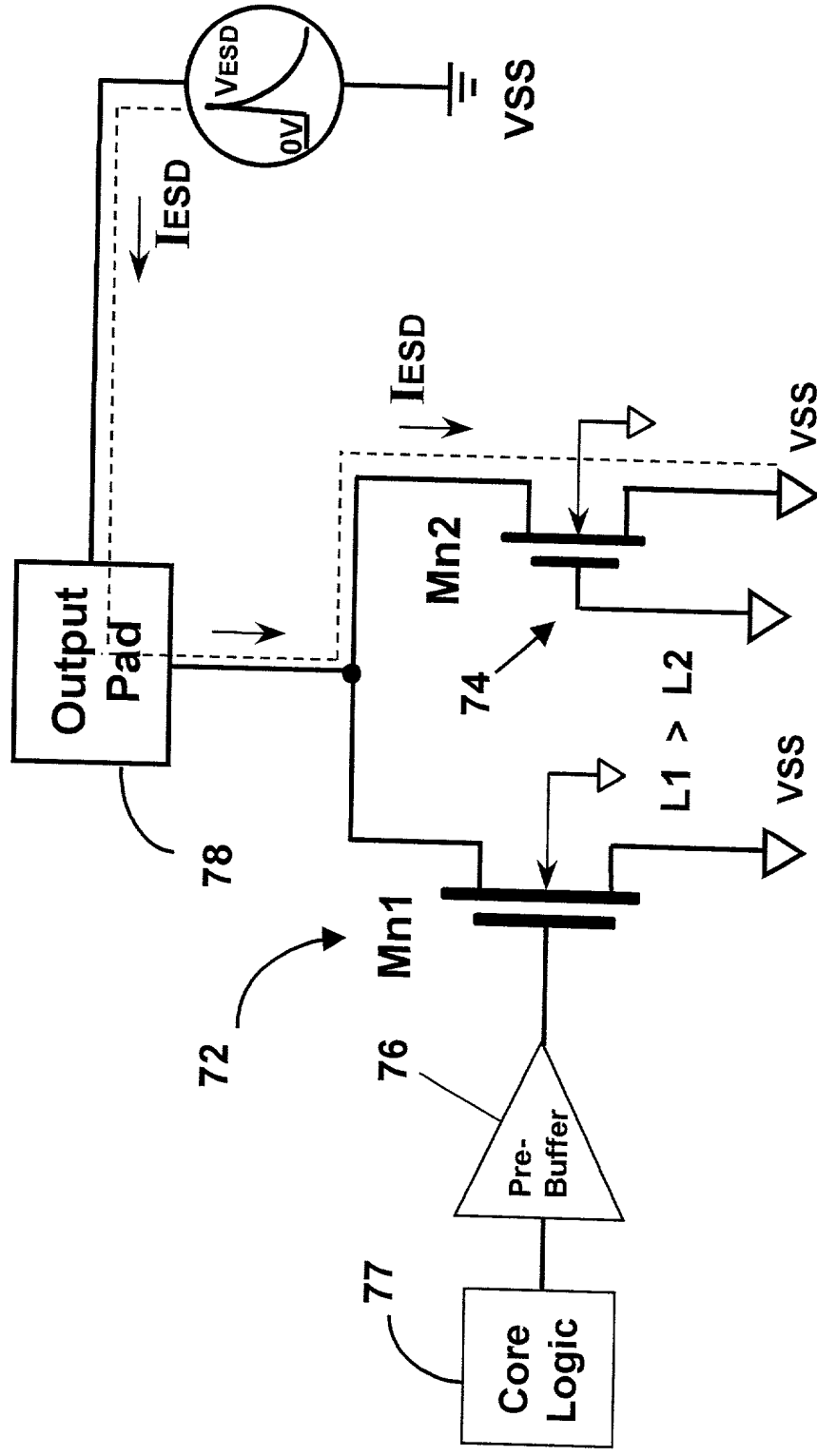


Fig.8(b)

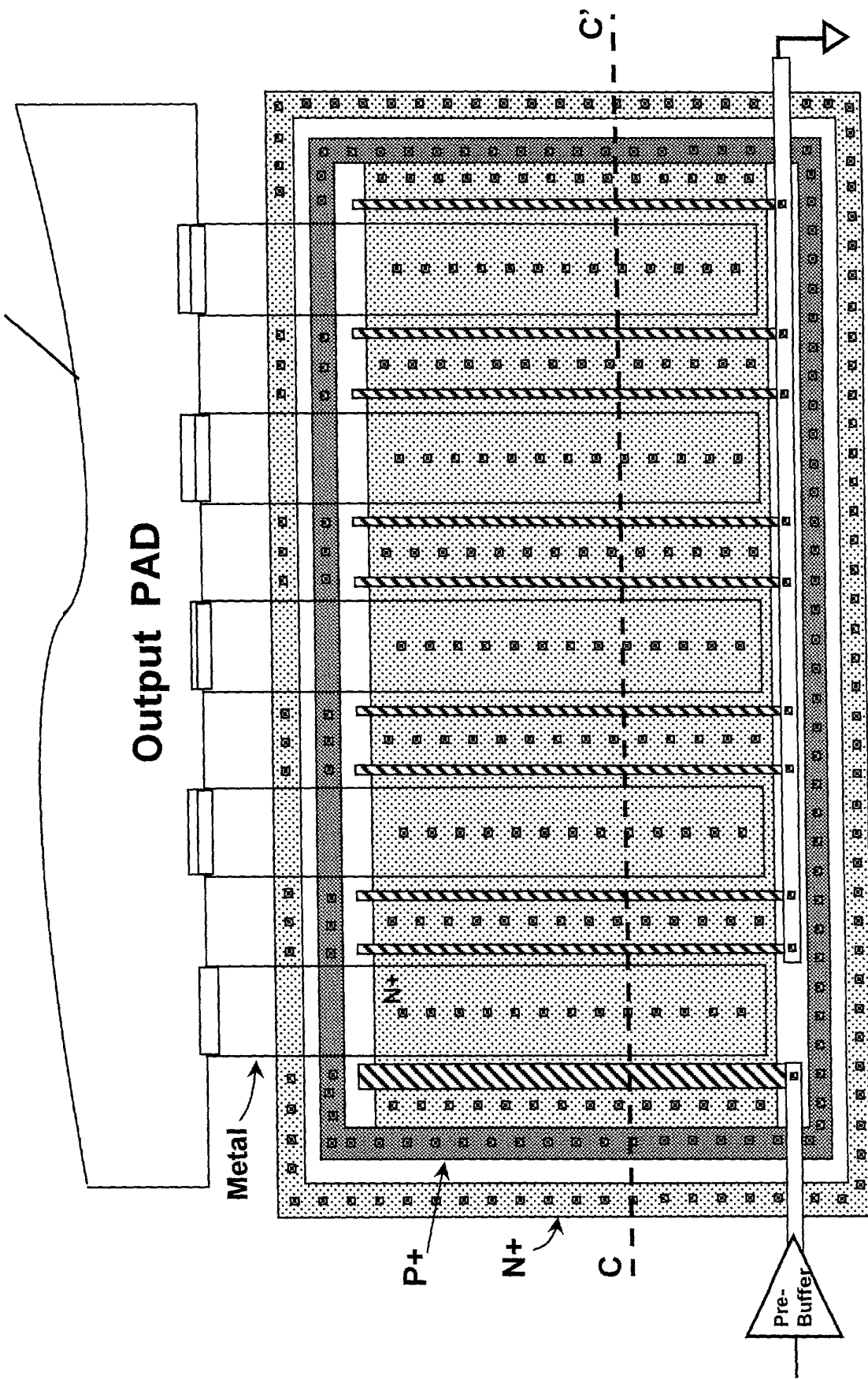


Fig.8(c)

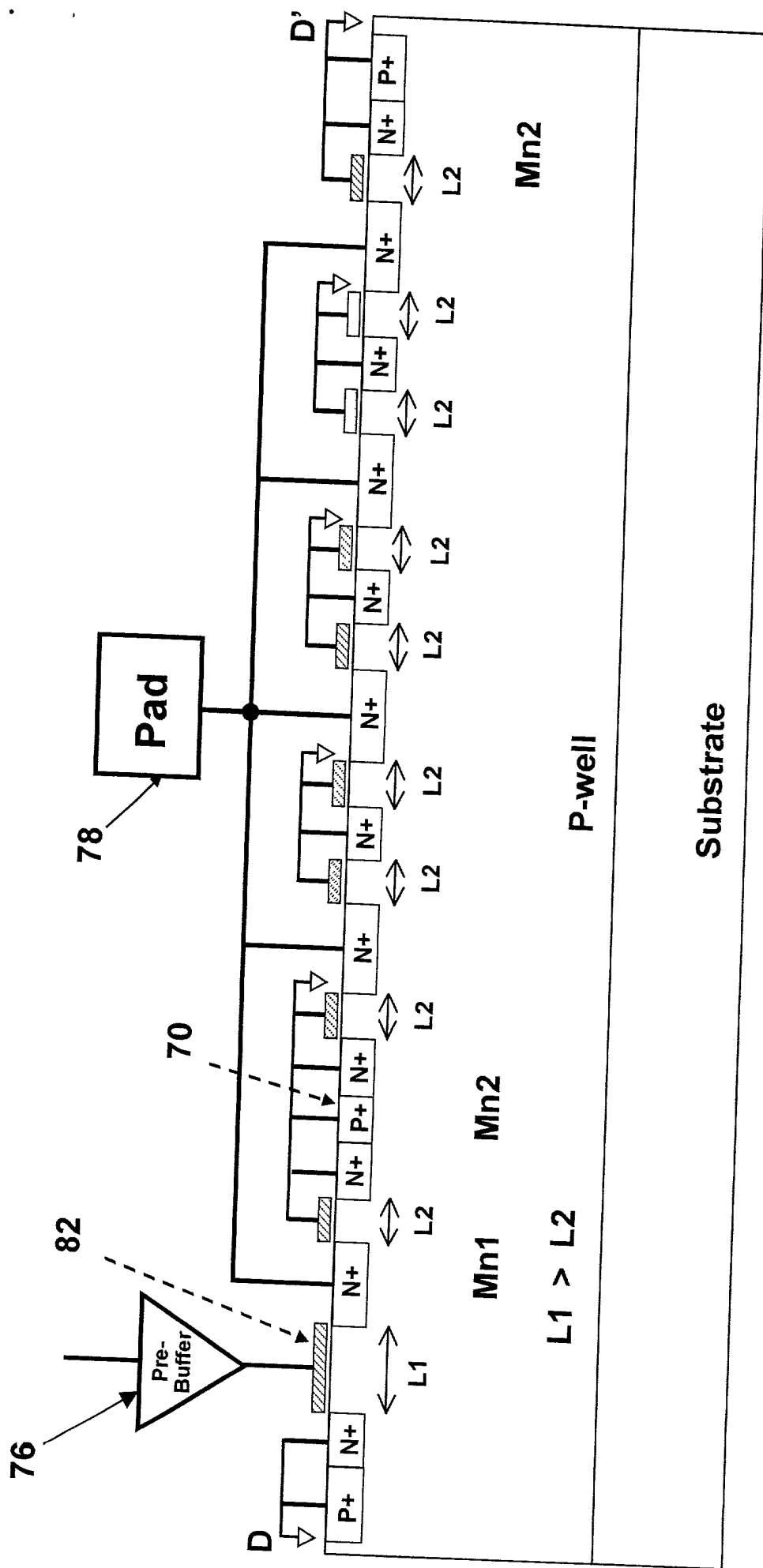


Fig. 9(a)

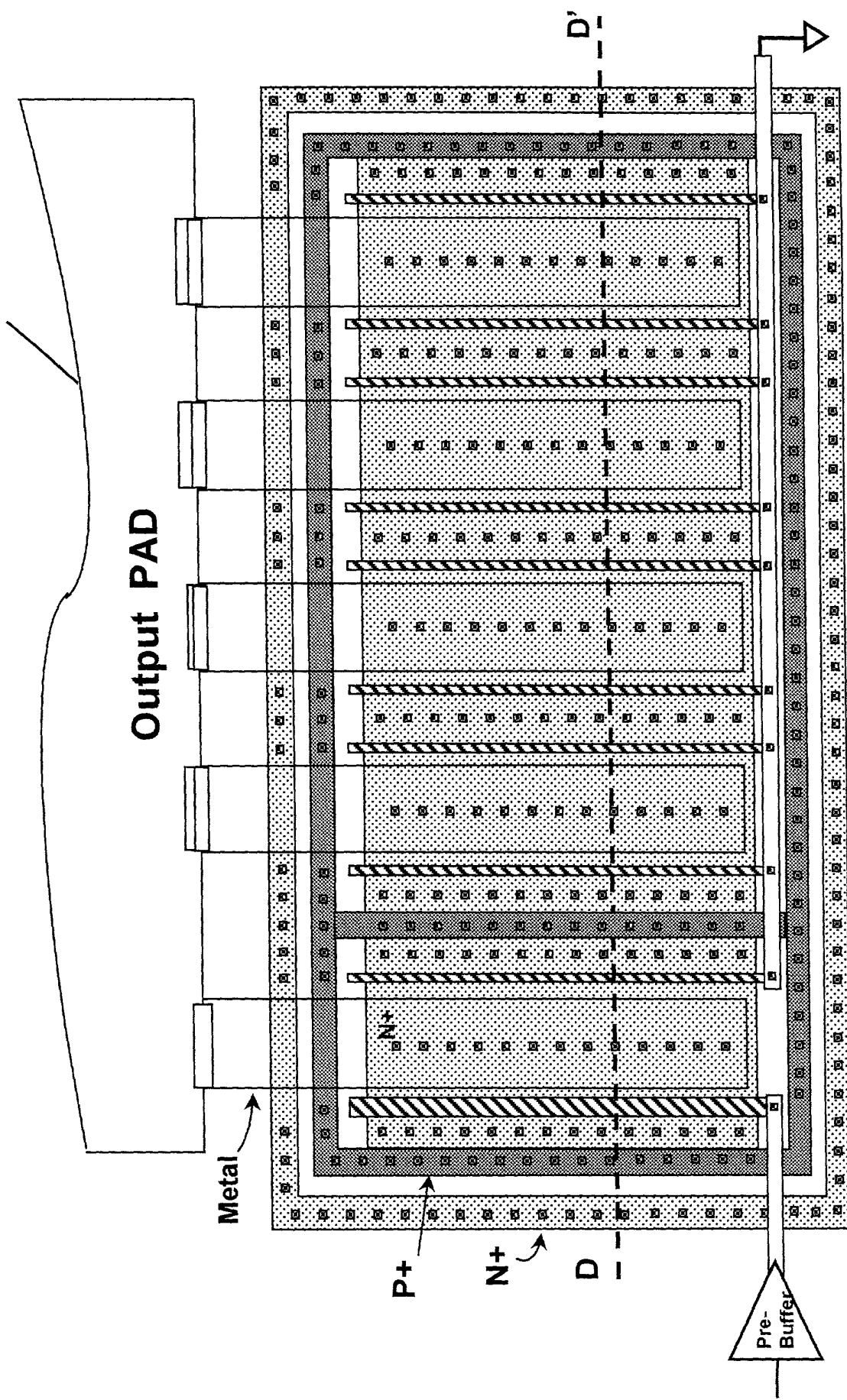


Fig. 9(b)

Input cell

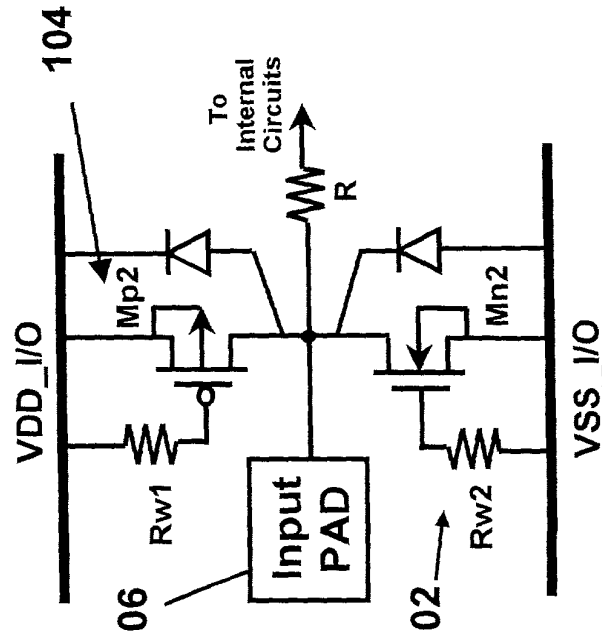


Fig. 10(a)

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Layout of Mn2 in the Input cell

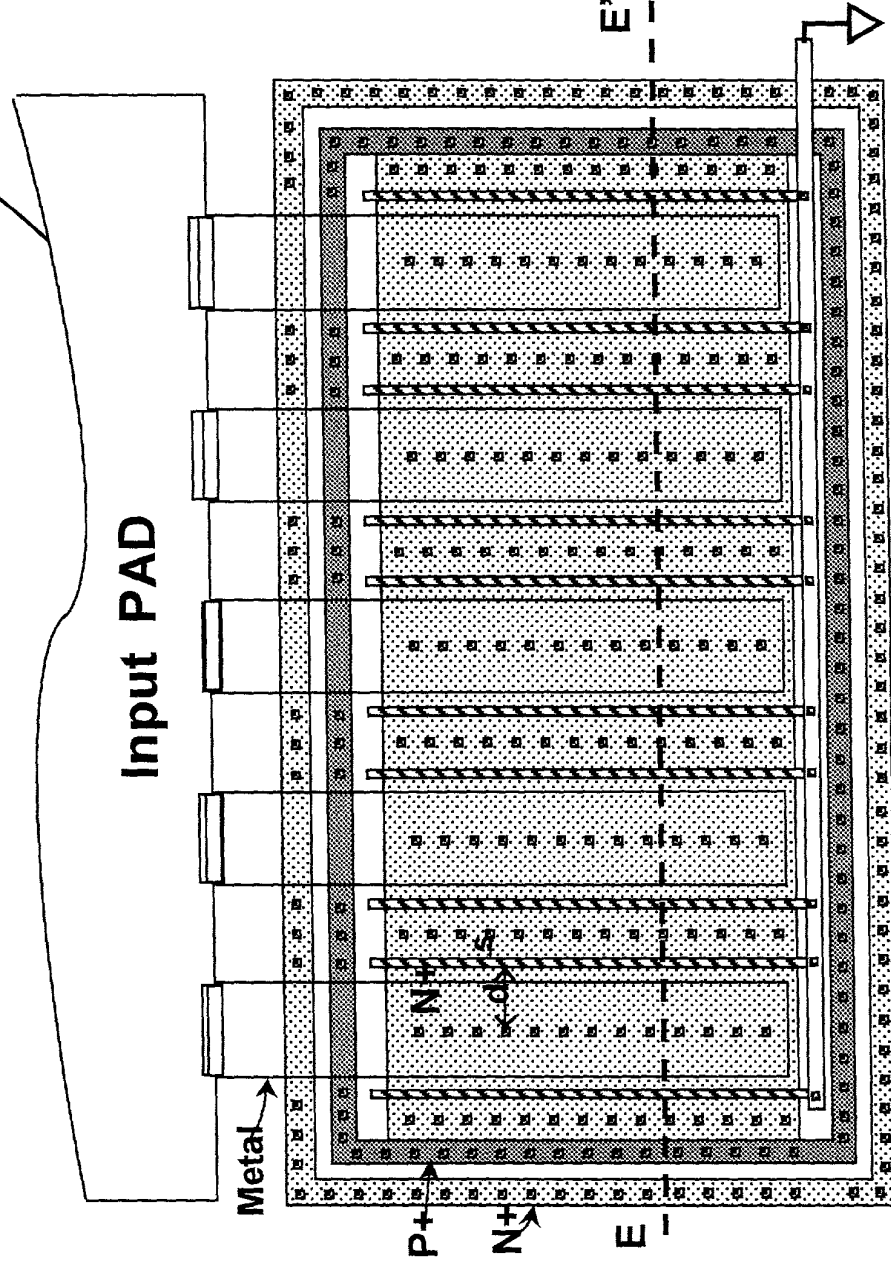


Fig. 10(b)

Input PAD

Metal

P+

N+

F

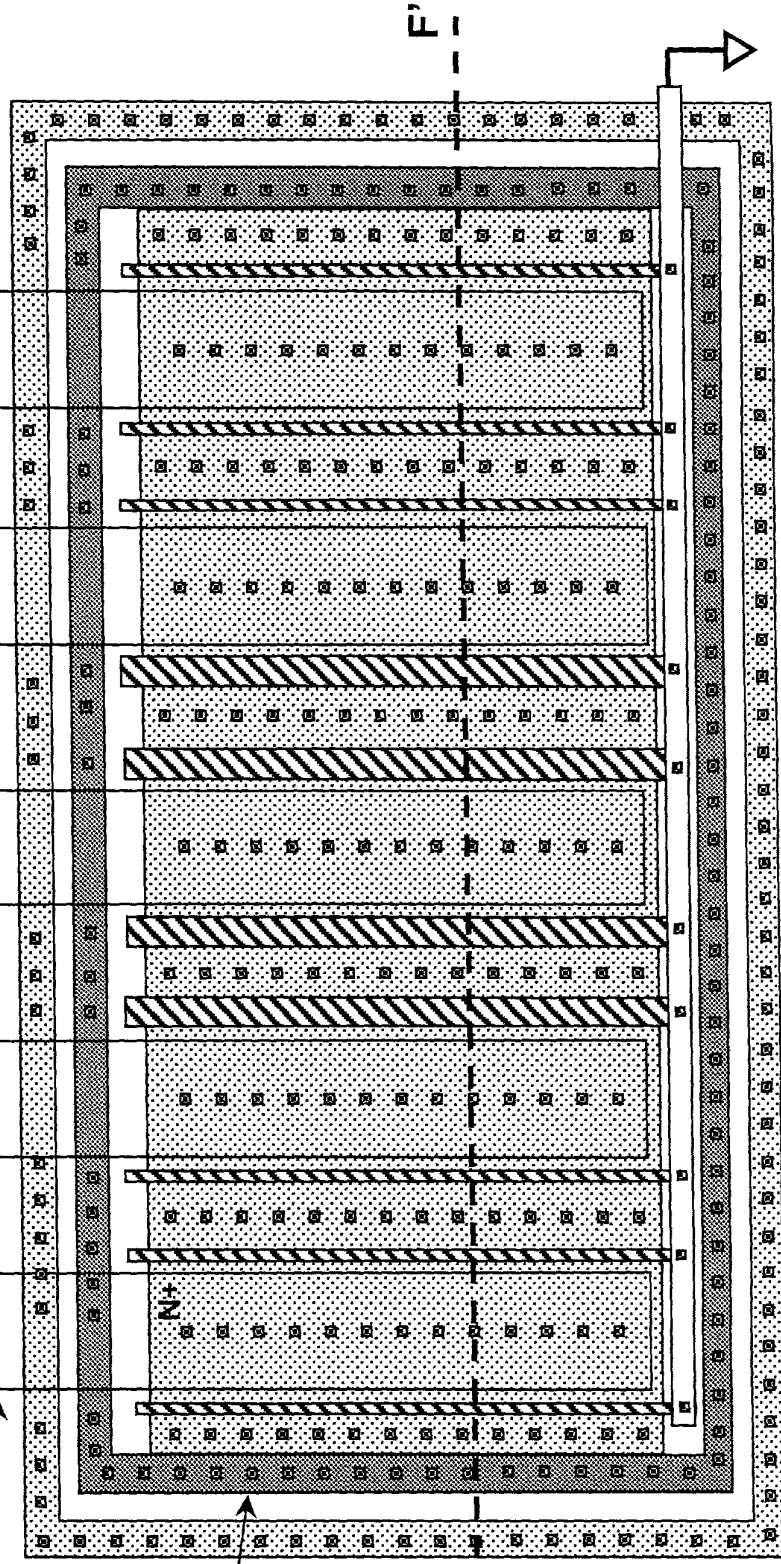


Fig.11(a)

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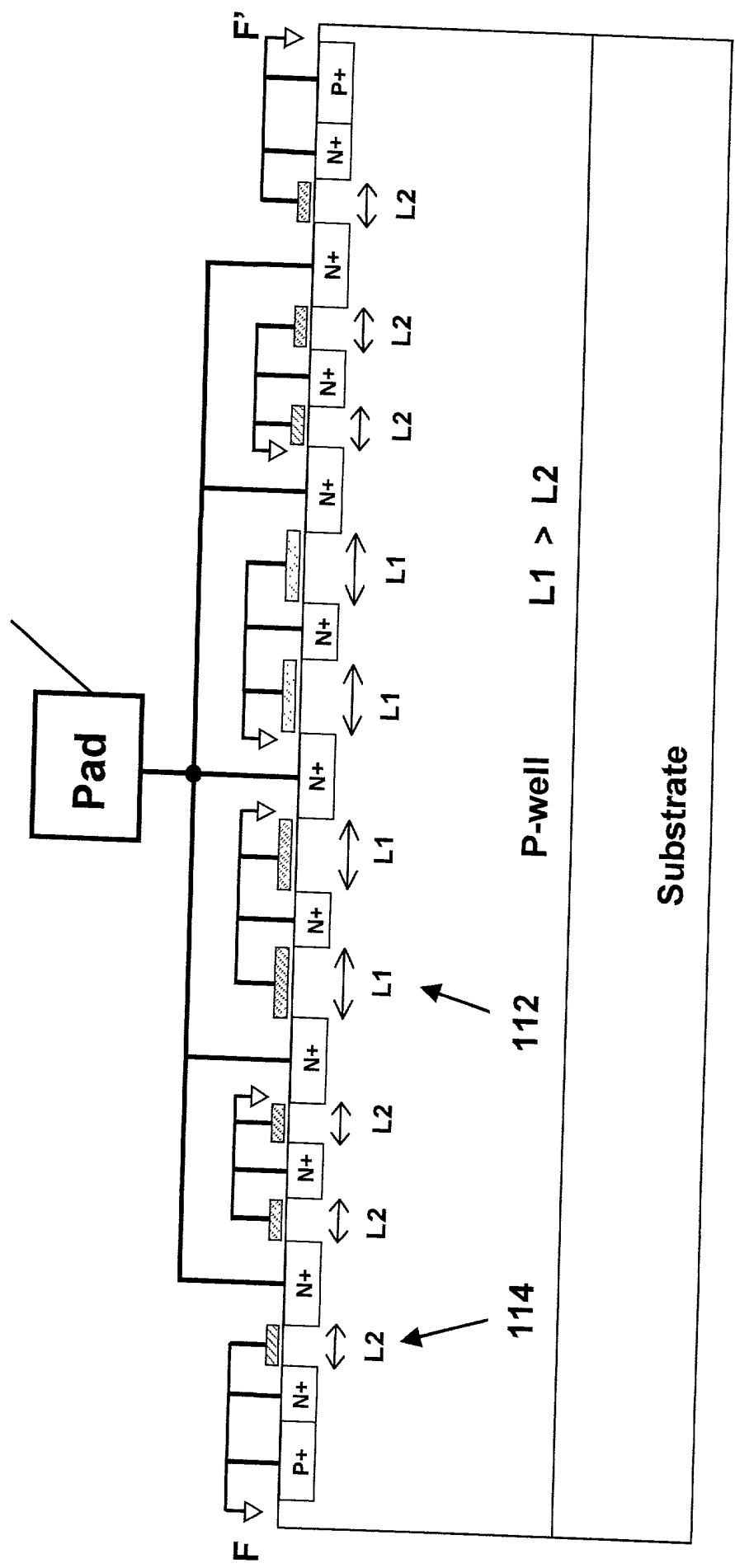


Fig.11(b)

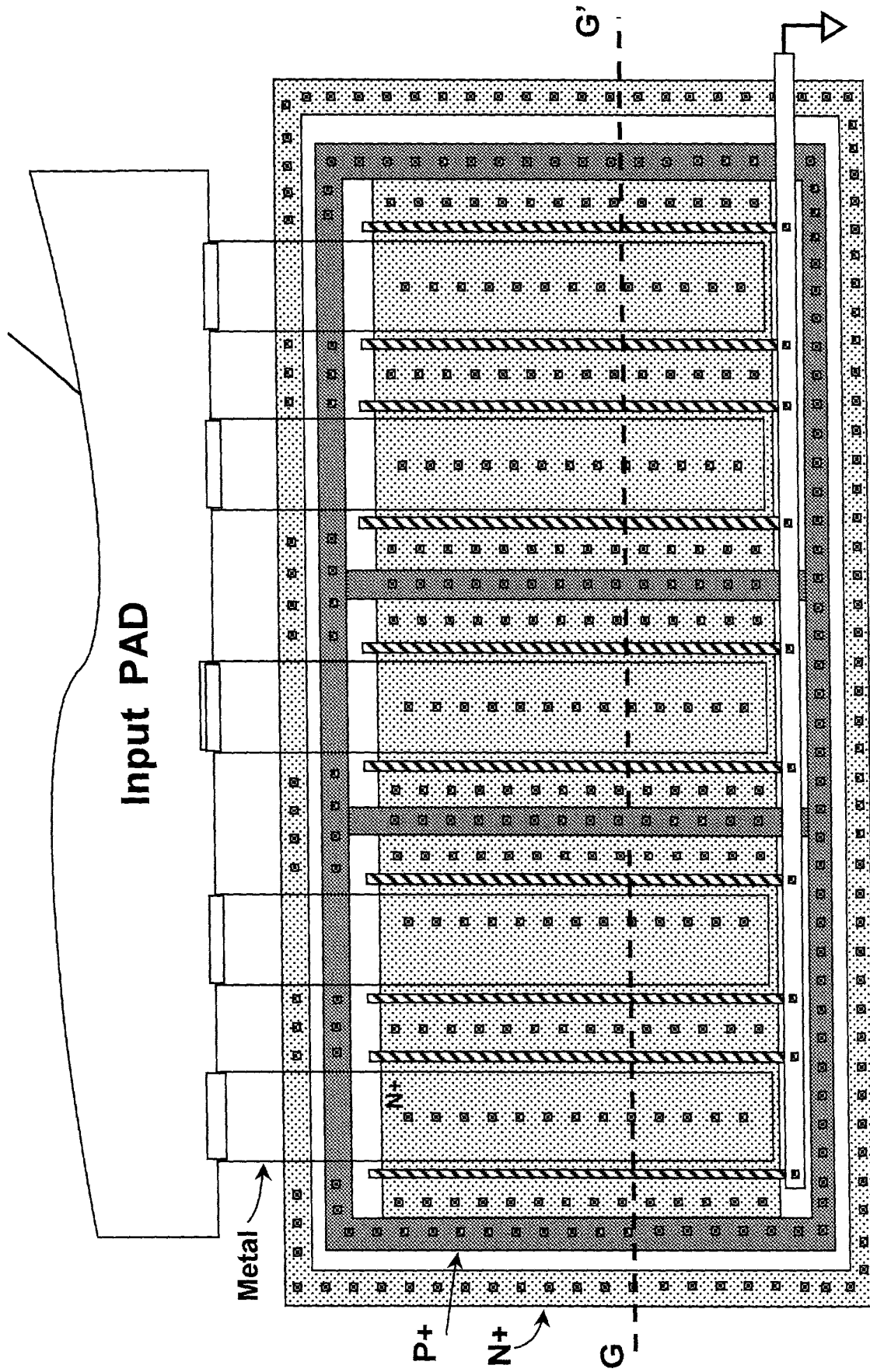


Fig.12(a)

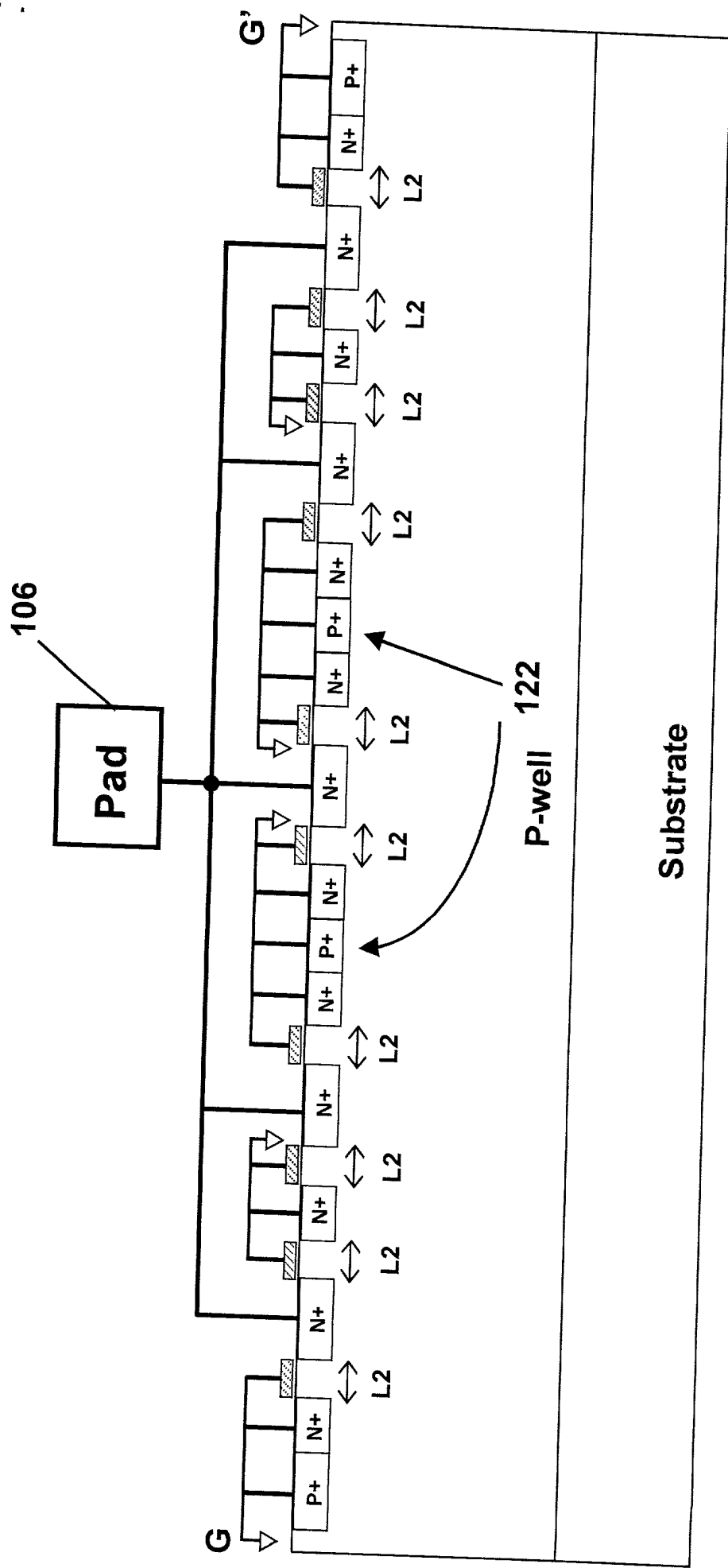


Fig.12(b)

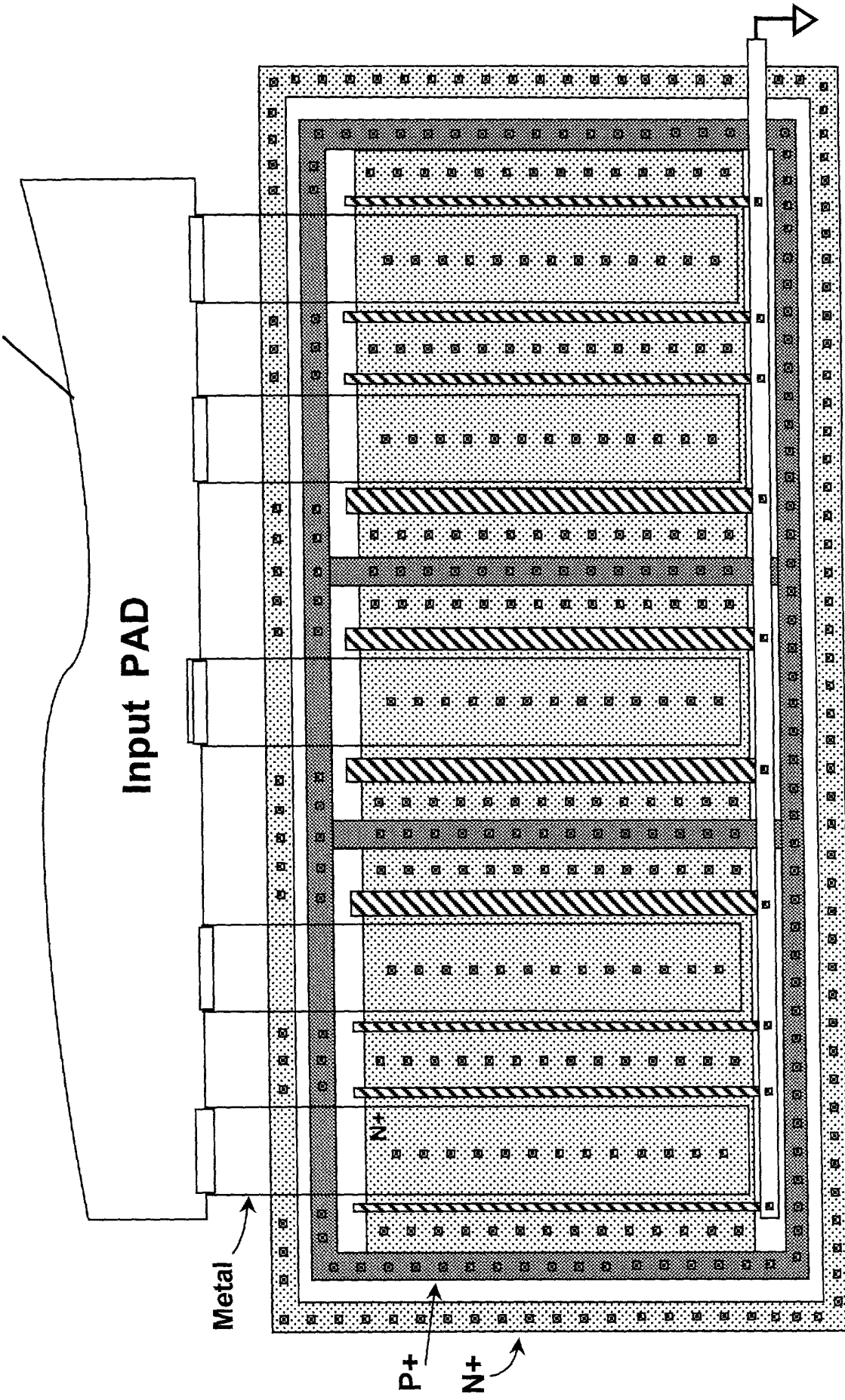


Fig.13

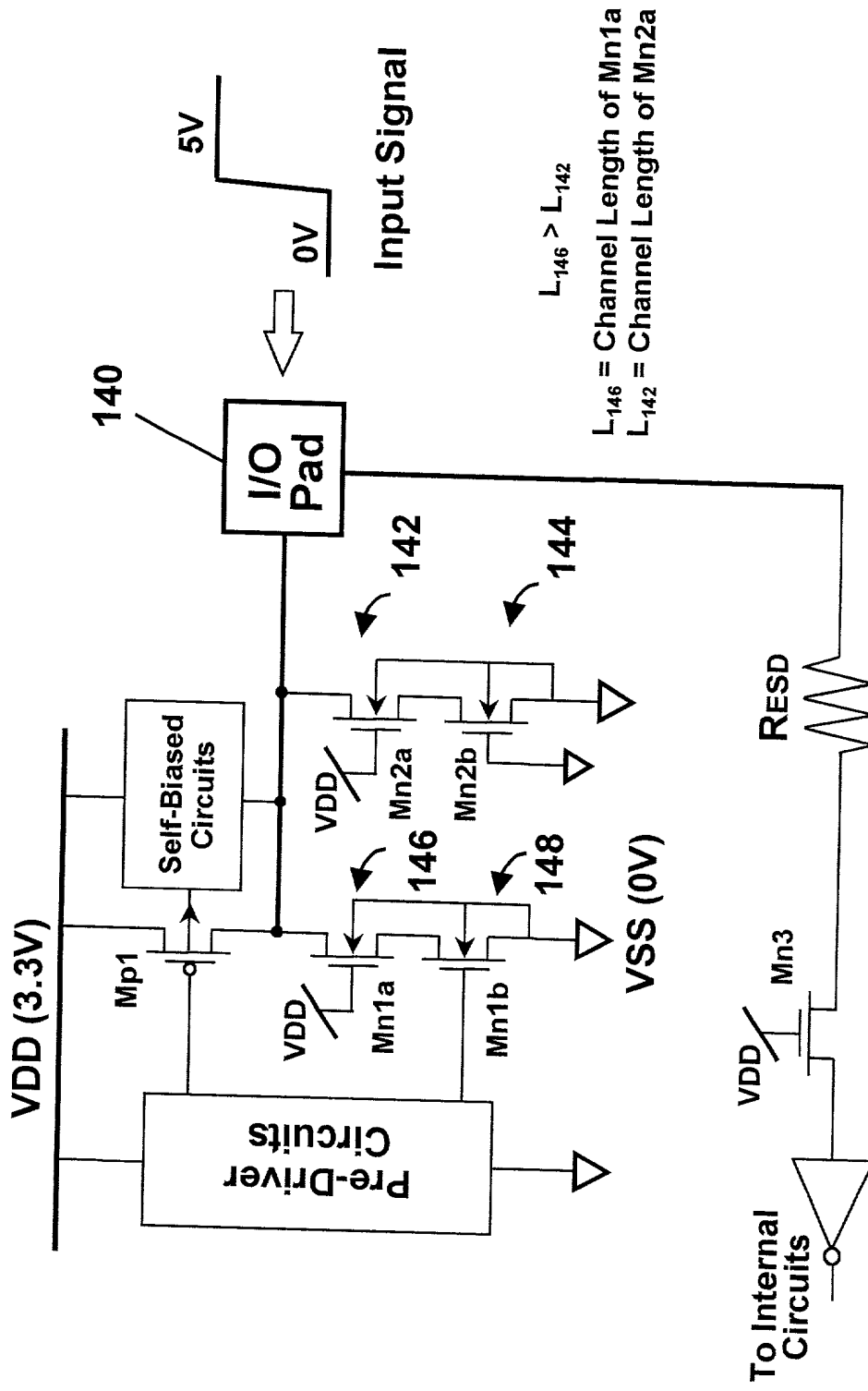


Fig.14(a)

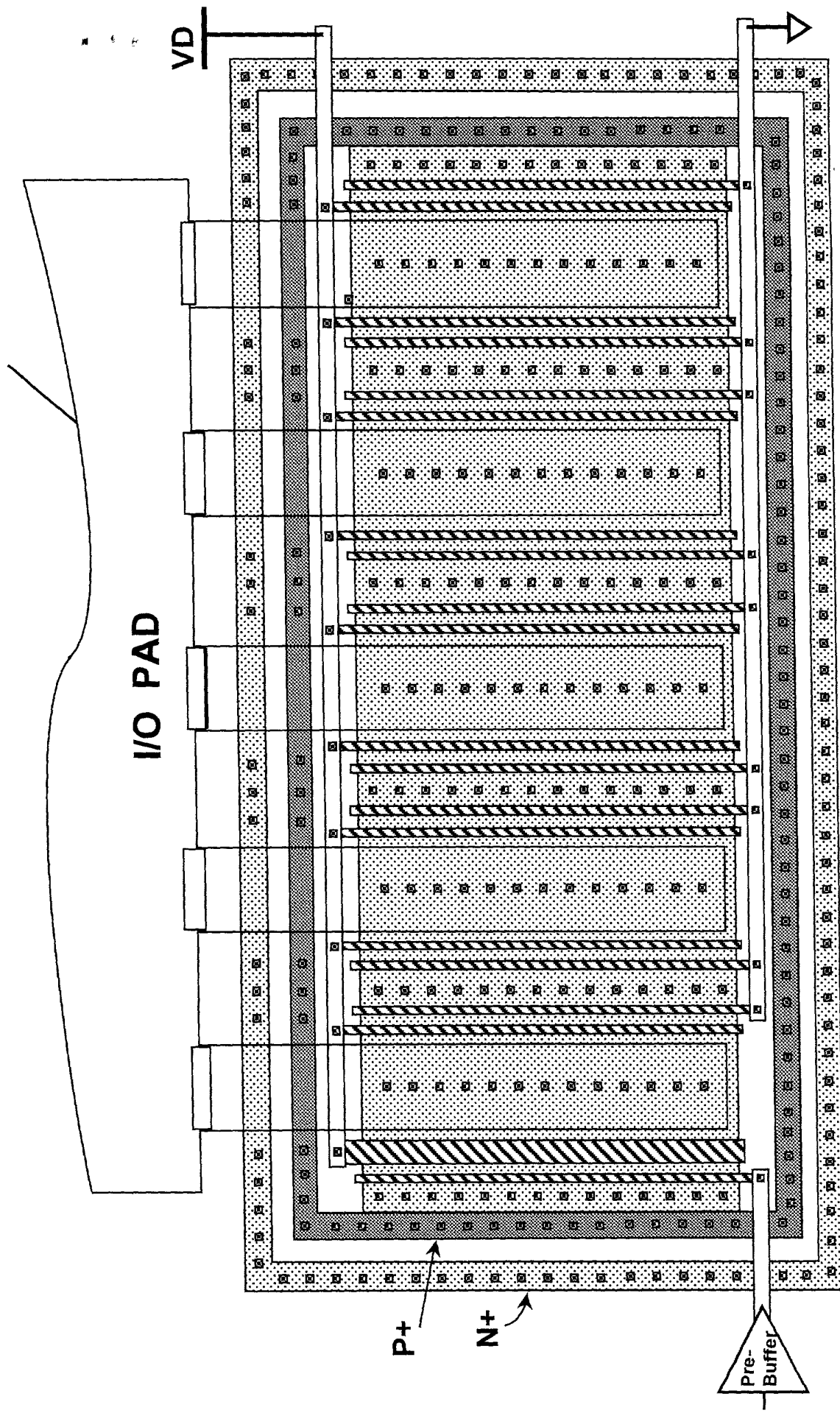


Fig.14(b)